```
         ●                      ●         ⌐ 101
┌────────────────────────────────────────────┐
│        HUMAN OPERATOR OR EXTERNAL            │
│        DEVICE TRIGGERS THE CAMERA            │
└────────────────────────────────────────────┘
                    │              ⌐ 102
┌────────────────────────────────────────────┐
│        CAMERA CAPTURES A FRAME AND           │
│        PUTS IT INTO THE IMAGE BUFFER         │
└────────────────────────────────────────────┘
                    │              ⌐ 103
┌────────────────────────────────────────────┐
│          FRAME NUMBER BUFFER IS              │
│           INCREMENTED BY ONE                 │
└────────────────────────────────────────────┘
                    │              ⌐ 104
┌────────────────────────────────────────────┐
│       GMT RECEIVER CAPTURES TIME AND         │
│        PUTS IT INTO THE TIME BUFFER          │
└────────────────────────────────────────────┘
                    │              ⌐ 105
┌────────────────────────────────────────────┐
│    GPS RECEIVER CAPTURES THE LOCATION AND    │
│       PUTS IT INTO THE LOCATION BUFFER       │
└────────────────────────────────────────────┘
                    │              ⌐ 106
┌────────────────────────────────────────────┐
│  CFLT (CAMERA, FRAME, LOCATION, TIME) ENCODER│
│         CREATES ENCODING LAYERS FOR:         │
│    CAMERA ID, FRAME NUMBER, TIME, LOCATION   │
└────────────────────────────────────────────┘
                    │              ⌐ 107
┌────────────────────────────────────────────┐
│         COMPOSITE ENCODER COMBINES           │
│    ALL ENCODING LAYERS, PRODUCES ENCODING    │
└────────────────────────────────────────────┘
                    │              ⌐ 108
┌────────────────────────────────────────────┐
│           IMAGE ENCODER COMBINES             │
│   IMAGE AND ENCODING, PRODUCES ENCODED IMAGE │
└────────────────────────────────────────────┘
                    │              ⌐ 109
┌────────────────────────────────────────────┐
│    ENCRYPTER ENCRYPTS THE ENCODED IMAGE,     │
│    PRODUCES THE ENCRYPTED ENCODED IMAGE      │
└────────────────────────────────────────────┘
                    │              ⌐ 110
┌────────────────────────────────────────────┐
│   LOCATION PROCESSOR COMPARES GPS LOCATION TO│
│   LOOK-UP TABLE TO CONVERT SELECTED LOCATIONS│
│      TO REFERENCE NAMES, LEAVE OTHER LOCATIONS│
│                IN GPS FORMAT                 │
└────────────────────────────────────────────┘
                    │              ⌐ 111
┌────────────────────────────────────────────┐
│  ANNOTATOR OVERLAYS REFERENCE NAME OR LOCATION│
│   AND TIME ONTO ENCRYPTED ENCODED IMAGE      │
└────────────────────────────────────────────┘
                    │              ⌐ 112
┌────────────────────────────────────────────┐
│   RESULTANT IMAGE IS TRANSMITTED OR STORED   │
└────────────────────────────────────────────┘
```

FIGURE 1

● ●

201

RESULTANT IMAGE IS OBTAINED
FROM CAMERA DOWNLOAD OR TRANSMISSION

202

ANNOTATION IS STRIPPED AND USED TO
SORT ON AND LABEL THE IMAGE FILE

203

RESULTANT IMAGE MINUS ANNOTATION
IS DECRYPTED

204

ENCODING FROM THE DECRYPTED IMAGE IS PRODUCED
BY USING KNOWLEDGE OF THE ENCODING ALGORITHMS AND
THE ENCODED INFORMATION (CFLT = CAMERA, FRAME, LOCATION, TIME)
OR BY MATCHING AGAINST ALL POSSIBLE COMBINATIONS
USING FLASHCORRELATION OR OTHER TECHNIQUE

205

IF ENCODING DOES NOT MATCH THE ANNOTATED INFORMATION
OR DOES NOT MATCH ANY POSSIBLE AUTHENTIC ENCODING
THEN THE IMAGE IS RULED TO BE NON-ORIGINAL

206

IF THE ENCODING DOES MATCH THE ANNOTATED INFORMATION
OR DOES MATCH A POSSIBLE AUTHENTIC ENCODING
THEN THE IMAGE IS RULED AN ORIGINAL

207

THE ENCODING IS REMOVED TO YIELD THE ORIGINAL IMAGE
DEPENDING ON THE TYPE OF ENCODING USED, THE ORIGINAL MAY NOW
HAVE VOIDS WHICH ARE FILLED USING STANDARD IMAGE PROCESSING TECHNIQUES
SUCH AS NEAREST NEIGHBOR APPROXIMATION TO PRODUCE THE
RESTORED ORIGINAL IMAGE

FIGURE 2

TRIGGER
301

317

GMT BHR
306

GMT BUFFER
304

GPS BHR
GPS BUFFER
305

FRAME # BUFFER

318

IMAGE BUFFER

307
CAMERA ID BUFFER

IMAGE
ACQUISITION
DEVICE

308
ENCODER

309

ENCODED IMAGE PROCESSOR
311

LOCATION
PROCESSOR
LOOK-UP TABLE
310

ENCRYPTION PROCESSOR
312

313
ENCRYPTED ENCODED IMAGE BUFFER

314
ANNOTATOR

315
RESULTANT IMAGE
BUFFER

316
TRANSMITTER

PERIPHERAL DEVICE   300

EVIDENTIARY   IMAGING   SUBSYSTEM

FIGURE 3

PIXEL ENLARGED FOR VISIBILITY
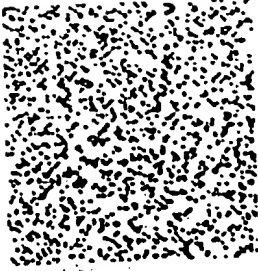
FIGURE 4a
ENCODING OF DATE/TIME
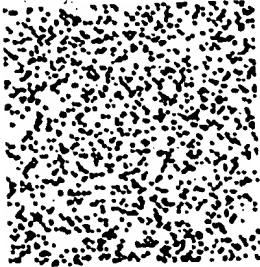
FIGURE 4b
ENCODING OF LOCATION
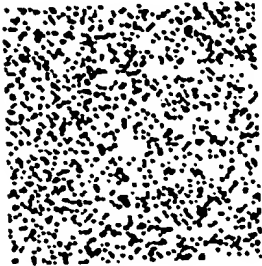
FIGURE 4c
ENCODING OF CAMERA ID
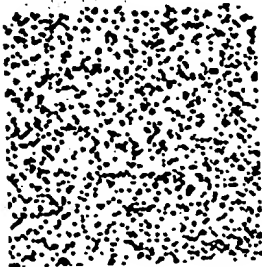
FIGURE 4d
ENCODING OF CAMERA FRAME
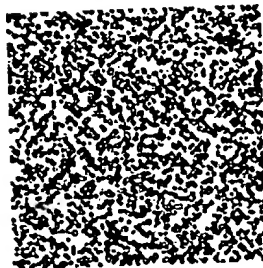
FIGURE 4e
COMPOSITE ENCODING

FIGURE 4

FIGURE 5a
CAPTURED IMAGE
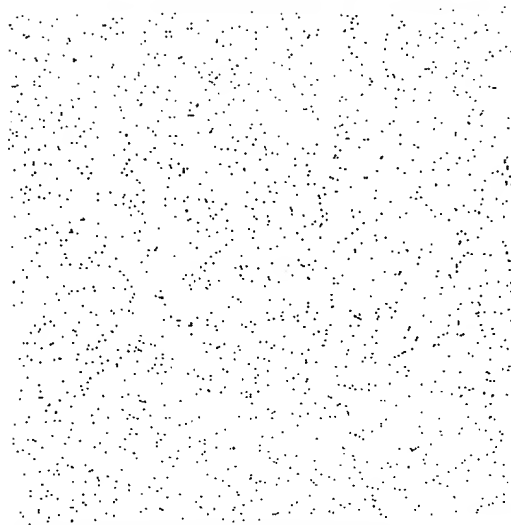
FIGURE 5b
ENCODING
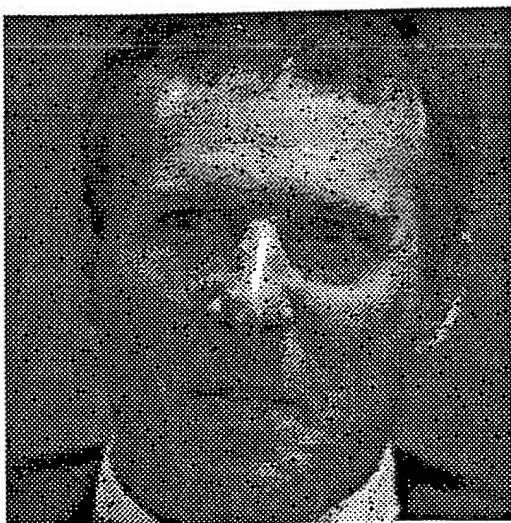
FIGURE 5c
ENCODING + IMAGE
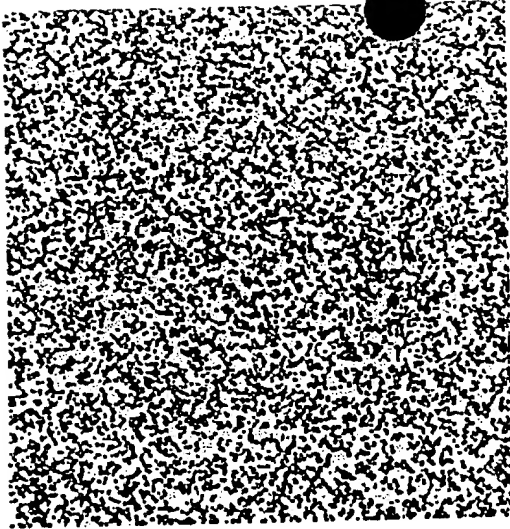
SCRAMBLED ENCODED IMAGE

FIGURE 6a

NYC IBM #23
99/12/25/12/15/00

ANNOTATION

FIGURE 6b

FIGURE 6c

ANNOTATED SCRAMBLED

ENCODED IMAGE

= RESULTANT IMAGE

NYC IBM #23
99/12/25/12/15/00

FIGURE 6

IMAGE RECEIVER 701

ANNOTATION STRIPPER 702

DECRYPTER 704

ENCODED IMAGE BUFFER 705

ENCODING GENERATOR 703

DATABASE OF POSSIBLE VARIABLES 707

AUTHENTICATOR 706

DECISION 708

NO

YES

IMAGE RESTORATION PROCESSOR + DECODER 709

RESTORED IMAGE BUFFER 710

TRANSMITTER 711

PERIPHERAL DEVICE

700
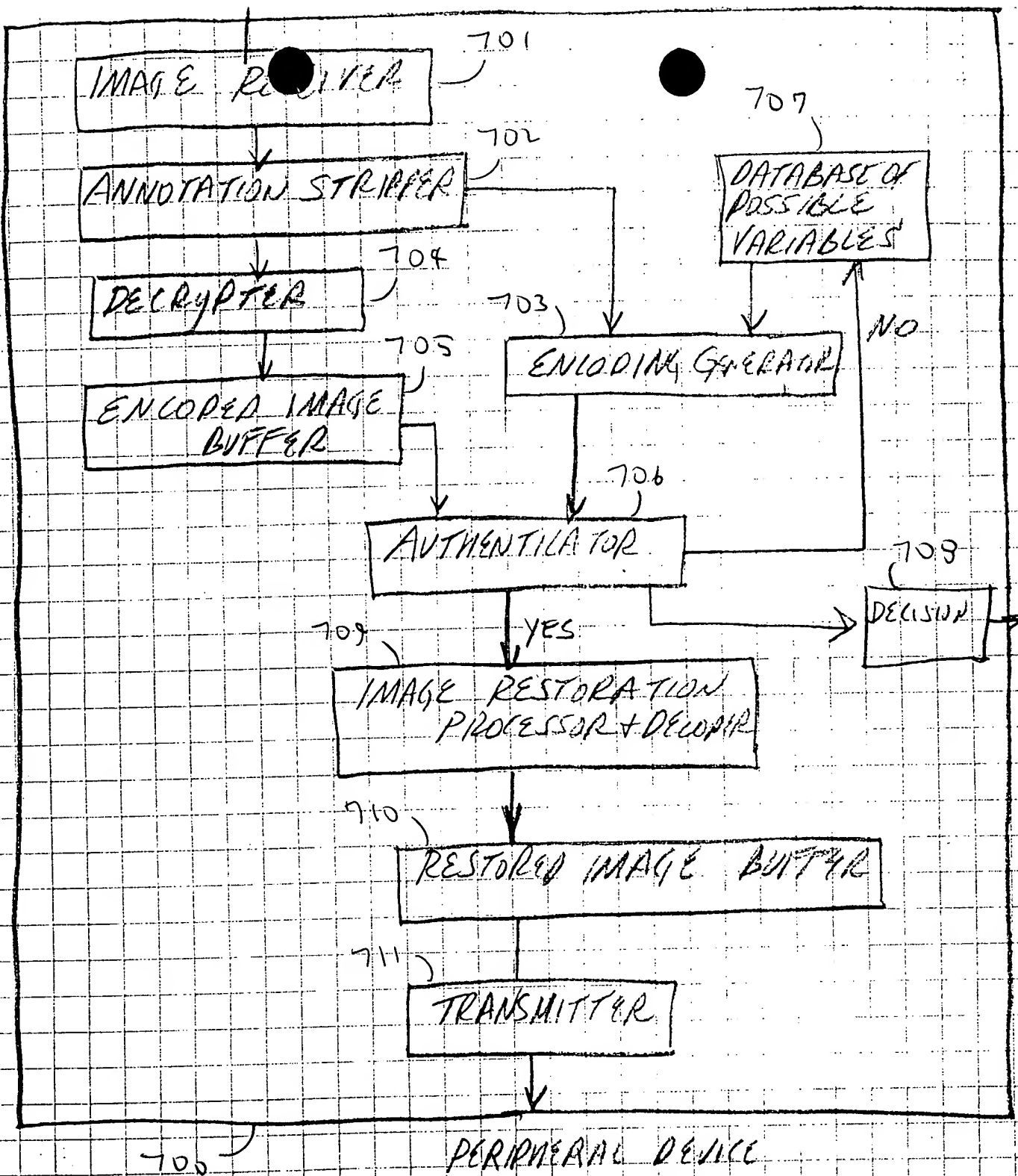
EVIDENTIARY IMAGE RECEIVING + AUTHENTICATION SUBSYSTEM

FIGURE 7
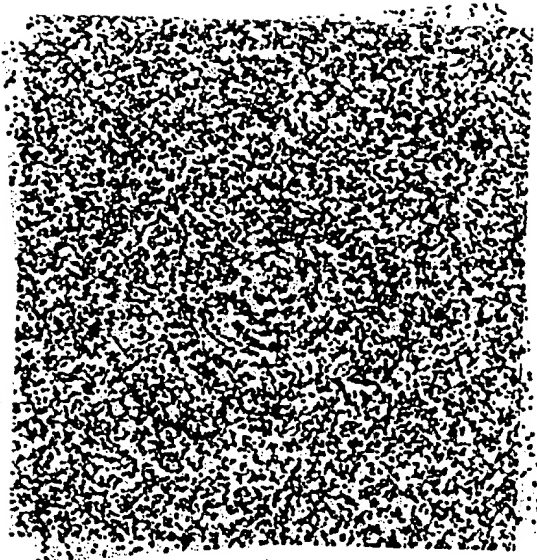
FIGURE 8a

DATE/TIME ENCODING
+/+ FlashCorrelated with the
ENCODED IMAGE
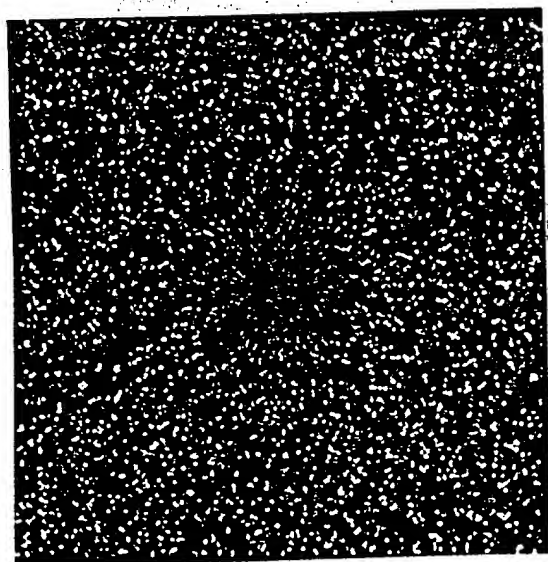
FIGURE 8b

DATE/TIME ENCODING
+/- FlashCorrelated with the
ENCODED IMAGE
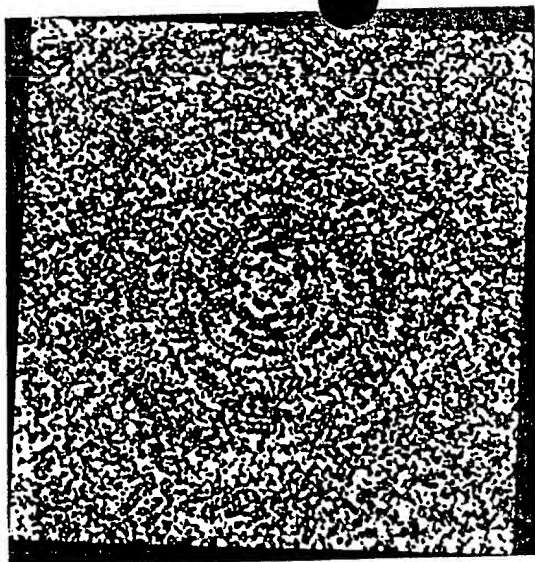
FIGURE 8

FIGURE 9a

DATE/TIME AND
LOCATION ENCODING
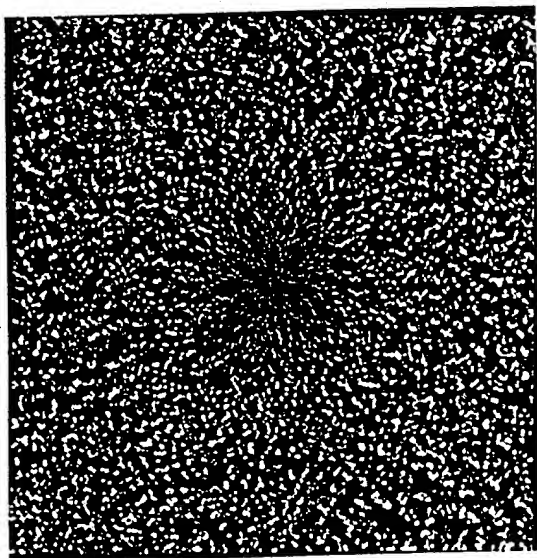+/+ FlashCorrelated with the
ENCODED IMAGE

FIGURE 9b

DATE/TIME AND
LOCATION ENCODING
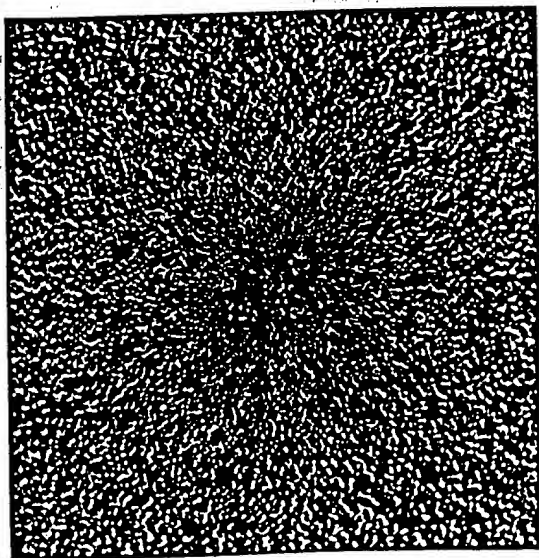+/- FlashCorrelated with the
ENCODED IMAGE

FIGURE 9c

DATE/TIME, LOCATION,
CAMERA ID, FRAME#
ENCODING +/- FC
WITH THE ENCODED IMAGE